

Claims

1. (Currently amended) A process comprising for separating and recovering 3-hydroxypropionic acid from an aqueous solution comprising 3-hydroxypropionic acid and acrylic acid, ~~the process comprising via counter current~~currently extracting the aqueous solution with an organic phase comprising ethyl acetate extractant.
2. (Original) The process according to claim 1, wherein the ethyl acetate extractant is present in the organic phase in an amount ranging from about 1 to about 100 weight percent.
3. (Currently amended) The process according to claim 1, wherein, without further purification, the recovered 3-hydroxypropionic acid is at least about 80% pure when separated from the aqueous solution process is conducted at a temperature ranging from about 0°C to about 70°C.
4. (Original) The process according to claim 1, wherein the volume ratio of organic phase to aqueous solution ranges from about 20:1 to about 1:20.
5. (Currently amended) A process ~~for~~comprising separating and recovering 3-hydroxypropionic acid and acrylic acid from an aqueous solution comprising 3-hydroxypropionic acid and acrylic acid, ~~the process comprising the steps of~~including:
 - (a) ~~counter current~~currently extracting the aqueous solution with an organic phase comprising ethyl acetate to extract the acrylic acid from the aqueous phase and into the organic phase and to separate the acrylic acid from the 3-hydroxypropionic acid; and
 - (b) contacting the organic phase formed in step (a) with water to extract the acrylic acid from the organic phase and into the water.
6. (Original) The process according to claim 5, wherein the ethyl acetate is present in the organic phase in an amount ranging from about 1 to about 100 weight percent.

7. (Currently amended) A process ~~for comprising~~ separating and recovering 3-hydroxypropionic acid and acrylic acid from an aqueous solution comprising 3-hydroxypropionic acid and acrylic acid, ~~the process comprising the steps of~~ including:

- (a) counter ~~current~~currently extracting the aqueous solution with an organic phase comprising ethyl acetate, to extract the acrylic acid from the aqueous solution into the organic phase and to separate the acrylic acid from the 3-hydroxypropionic acid; and
- (b) heating the organic phase formed in step (a), in the presence of water, to distill off the ethyl acetate, thereby forming an aqueous acrylic acid solution.